A GUIDE TO THE BOTANIC GARDENS.

SINGAPORE.

T. F. C ...

SHARE

Draft Guide ly T.F. Chipp 1921 (never published)

GUIDE TO THE BOTANICAL GARDENS.

Many Enquiries are received from visitors to the Betanic Gardens for a guide to enable them to see the chief items of interest in the short time at their disposal in Singapere. Ne handbeck of this kind has been attempted since that written by ho for as in 1888 and it is felt that an up to date becklet illustrated with typical views of the Gardens will supply a long felt want to visitors and be of interest also to the many residents who have recently arrived in this country.

or the state of the

For the convenience of visitors who have only a few hours at their disposal a plan of the Gardens is included and a route marked by a dotted line is suggested which will enable anyone to find the principal trees and plants of interest without difficulty. This route does not indicate to be

Carden, and visitors desiring to visit it are recommended to make an appointment at the Garden soffice for a guide.

The suggested tour is marked out in the Gardens by sign boards painted with a number and the will help the These numbers are inserted on the map and will help the visitors to fix the locality.

A catalogue of the species of plants grown in the Gardens is published separately also a list of plants which from time to time become surplus to the requirements of the Gardens and are available for sale to the public.

A bulletin known as "The Garden's Bulletin" is published quarterly, giving accounts of recent work and observations carried out in the gardens, and a summary of articles published in other journals that are likely to be of local interest. This bulletin was founded by Mr. Ridley in 1891 and first published under the title of

The Agricultural Bulletits of the Inclay Peninsular

subsequently changing

to Agreellind Rullelin of the Stends and Haderaled maley in 1901.

On the establishment of an Agricultural Departmental Bulletin

name of " The Garden's Bulletin, Straits Settlements".

The Botanis Contens. history

Stamford Roffles in 1822 and went situated around the old Government House on the north east side of Fort Canning hill. These Gardens were abolished in 1829 and it was not metal 1859 when a muches of reserves

Society, under the title of The Singapore Agri-Horticultural Society, under the title of The Singapore Agri-Horticultural Society, and obtained a grant from Government of about 45 acres of abandaned land between Napier, Cluny and the Garden Acada Last the purel Asian Guelan County and the Garden Acada County that purel Asian Guelan County that present Between made and their crisin, and they have been devolved around the cite originally granted.

Society's first object was to create a pleasure garden as an alternative to the Esplanade, and a place where a band could play, and in 1861 if not in 1860 a regimental band is recorded as having played on the site of the present bandstand.

Except during the period of the war, the Regiments staticaed in Singapore have very kindly continued this courtesy, and the large humber the create that are present in the Gardens on the occasion of band performances testify to its popularity.

Almost from the very beginning the Society had obtained the part time services of Mr. Lawrence Niver as Superintendent and it is to his energies that the early development of the Gardens is due, and the general features that he planed have not been changed mince. In the year 1874, the Agri-Herticultural Society, feeling that their financial position was not such as would enable them to develop the Gardens in the way they intended, requested the Government to take over the charge that they might be placed on a proper scientific fecting. This proposal was accepted and Mr. James Marton, was sent out by the Director of the kayal Bolanie Kan Gardens as Superintendent.

Mr. Murton during the five years he was in charge, chiefly devoted his attention to the introduction of new plants from other parts of the world, and in a very short time he more than doubled the number of species in

cultivation.

In 1880 he resigned his appointment and was succeeded by Mr. Cantley who was transferred from Mauritius.

Under Mr. Cantley's direction, the Gardens sphere of influence was extended to include forestry, and it was from this beginning that the present Forestry Department of the country originated. The Gardens were extended so as to include the Military Reserve, now known as the Boonomic Garden and that part was chiefly devoted to forest nurseries and the introduction of forest trees from other countries.

In 1888 Mr. Cantley died and was a cceeded by

Mr. Ridley, who held the post of Director till his retirement

in 19/2. During his term of office the excellent

Herbarium of higher plants and ferns of the Malay Peninsula

was built up; the planting and development of the Para

Rubber industry took place; and the publication of the results

of the work done by the Gardens/took the form of a bulleting

Many separate papers, and the Materials for a Flora of the Malay Peninsula.

On Mr. Ridley's retirement in 1912
he was succeeded by Mr. Burkill, the present Director.

THE ZOO.

collection of animals in the Gardens, representative of the local farms. Large numbers of gifts of large and small animals rapidly accumulated and considerable expense was entailed in fitting up the necessary accommodation. A house with enclosure and a wallow for the Rhincoeros was made at the foot of the Lake; The Deer were accommodated between the Lake and Garden Road; the Kangrots and Emus were by the present

office; the carmivers were housed on the north east side of the Bandstand Hill; the monkeys lear the present Herbarium.

The expense of the buildings and maintenance of the animals however, proved too much for the Government grants, and when in 1876 some evil disposed person killed in one night a Bear, the Emu and the Case, and when shortly afterwards several of the larger animals died, it was decided to limit the collection to small animals only. By 1879, only the deer and a few small animals and birds remained, and shortly afterwards the idea of the Zoo was definitely abandoned and the collection dispersed.



The Botanic Gardens, are situated in the Taughin district of Singapore and are about three miles from the town. They consist of the original Botanie Condens of about 80 acres, and the Economic Caroleus of about 100 acres. The site is undulating the highest point being about 200 ft: above sea level. The climate: is hot and moist, the temperature is equable the mean only varying between 78° and 82° F throughout the year. Rain is frequent, in 1919 the longed spell without rain was fine days, whilst in the westest period, at the end of December, it office rains for live or there days course on lively. In 1919 the qualent amount of rain in the lawns was 6.07 inches. His latter fact fully accounts for the party of flowers, for the sharp heavy showers of grand Line was come of the ROUNTED. A second in the second in th

Shortly after leaving the orons reads at Tanglin the visitor and sees the principal entrance to the Gardens marked out by four white pillars, the two teller ones surmounted by glass globes. These pillars were erected in 1885 and the globes placed in position in 1886.

On entering the Gardens one Sees the main road which leads to the Bandstand lying straight shead, and bordered by flower beds illustrating the best varieties of Campagnish the form bright splashes colour against the green of the laws.

To the right leaves A stretches to the Gardens' Office and is bounded to the wester by the Herbanium Ring Road. The collection of trees and shrubs here exhibited is well worth a few minutes mappention.

Frances of the man entrance is

F131/11

a fine specimen of the Grant Orchid Grammatop byllum 11. species um, whose long stems hang in grassful curves from its footbold in the fork of a Rain Tree Prithecolobium Samaan. Transp op Behind it a little further from the Entrance is a large tree of the truting family, of considerable botanical interest, for it is believed to be the only specimen of its kind in existence, hugis tien pendulina. As it has uniserceal the female flowers it cannot produce seed and its approduction is a will cease to exist with the death of this apecimen unless other means of reproduction prove successful. Several Coniferac may be seen dotted about. Huy have chiefly been in trochecd from austratia her Caledonia and hisfolk bland, and one quite immed at such a low elevation in malay.
A group of trees presenting very much in appenence & Price très au Casuarina servo trava

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a pretty and graceful tree, and very defferent from 12. the ordinary Casuarina equis elifolis which can also be seen near ley.

Two bold champs of the yellow stem bamboo, felizes tachyum brachyeladum, form a pleasing contrast to the general green of the sourounding trees.

Close to the road is a heavy mass of the climber Bignonia magnificor whose delicate mancre florvers splashed with crimson and primore, provide a pleasing effect. It has clambered over a specimen of the Ceylon from Wood, messea ferrea, whose flowers are used in India for scenting clothes.

are the graceful from palm with drooping leaf points hives tona incruis, and at the back of the laws

small specimens of the Porth were in

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Here exepitans, whose finite explode with a rifle-like detonation, and the Sourage Tree of the tropical Ofician sewannah, Kigelia pinnata; and two specimens of Heven confusa, very like the Para Rubber Irce, Herren brasiliusis, but with a very poor quality later and with a dangerous ability to deteriorate the Bona Bubber Trie by cross fertilisation. Care is later to purent these trees from flowering so as to avoid any vistes to rubber in this country. On the left of the main entrance lawn L extends as far as the lake. The most interesting plants here are the specimens of Elacis guineens is, the West Ofician Oil Palm; a tree of Para Rubber, Heven travelienses, to which healaya owes so much; and

the Trivellers' Palm, Revenala speciosa, from the

can be obtained.

The chief feature of this laws, however, is the two large clumps of the Sago Palm, metroxylor, laws from which the Sago of commerce is obtained.

It is a native of New Guinea and is largely

cultivated for the valuable flour obtained from the stems. The prepared flour is commercially known as sago and forms a baluable article of export from this Colony. The stem when fully developed, is cut down and divided into pieces from three to four feet in length. The outer bark having been removed, the soft pith is scraped out by means of various scrapers and pounded in water, removing the starchy matter from the fibres of the stem and holding the former in suspension. This mixture is allowed to percolate through the interstices of a very fine mesh - usually a piece of cloth. The starchy matter on hardening, is known as sago meal. By various methods of treatment, flake and pearl sage are obtained from this meal or flour. It may be noted that the Sago Palm yields the largest amount of nourishment per area of any

known plant, one stem often yielding 266 lbs.of flour, while a good plant may have three or four stems mature at the same time.

Close to the second clump of Sago Palm is a small water tily pond, at present occupied chiefly by him nan them um eristatum whose while star-like flowers make a pretty show in the early morning. The small fish to be seen in the pond are considered to be of use in destroying the larvae of the anopheles mosquito. Before reacting the take there is another small pond fed through three giant clam shells. This was originally a wallow for the Rhinoceros. At present it contains specimens of the Paper Read of Syrier and Tropical Africa, Cyperus papyrus, and the blue flowered water hyacinthe Eichornea crassipes, locally grown by the Climese as a pig food n comes from he

america, and is closely related to the "Wale Soldies" which causes so much damage by choting streams. Between this pond and the lake is a good specimen of Fries Benjamina whose aerial roots hang down in dense lifts to the waters edge, In its branches can be seen many speinners of misletoe whose yellow green leaves stand out conspicuously against the dark green of the fig her itself. One must also here notice

The lake itself is about 2 acres in extent and from three to mine feet deep. In the early morning the watertilies, white, pants, red, and deep blue are a lovely right, whilst on the far side weeken ging brees of Jacanouda minoscoples that mechaning

the fine example of Podocarpus cupressina, a native

manue blue flowers on the lake and paths around!

On the island are fine specimens of the Screw Pine. Pandames, and the local Ribong Palm,
Onco perma horrida.

Striking off to the right round a finely apreading specimen of the Waringin, From Benjamina, and lating the small path under the bamboo champo be tween lawn A and B one crosses the Herbarium Ring Road, to the top of the knoll where once slowd the aviaries. To the left are beautifully grown specimens of the native Tembuser tree, Cystophyllum fragrans, perhaps the most graveful and shappely of our in oligenous hers, and well suited for planting in open pack like stretches or in overnes.

along the Rry Road may be seen by

P.130/18

Wallishia distisha, a plan palm with its leaves ? arranged in two rows for opposite sides the stem, above one is albizzin moluciona, whose flat crown and whitest stem make it one of our most compicuous progression when in flower there lies one a man of white and the drove of the visitors is heard at a consolicité de true de lies our a man of white and the

The small path one now follows is bordered by the graceful feather-leaved palm Rhopaloblaste besomden from the moluceas, and at the top of the path is a remarkably fine mass of Bong amvilles glabra, climbing to a height of 20 feet and in its season covered with deep manne "flowers." Continuing our walk we pass the Office, and Herbarium and haboratory on the right. On the left is a small bush of myristica fragrans, the hutness of commence, whilst each

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Grypha Gobanga. Here also will be seen specimens of arancaria from horfolk Island, all that now remain of an avenue that once bordered a road connecting the main Enhance to the office. Here "pines" are very subject to the attacks of white anto and only three of the original avenue are now standing.

and most representative collections of palms in the bardens.

Their veniety of the variety in their manner of growth and shape of leaf is admiratly contrasted.

In crossing the Herbarium Ring Road again one must paire to notice another bold clump of the yellow. Hem Bamboo, Shizostachyum brachyclachum, and some specimens of the brilliant flowering shrubs limberstie nobilis,

Saraca thaipingensis, and Brownea grandiceps. The spotted of pale yellowish clusters of drooping young leaves of the latter contrast strangely with the horizontal dark green older heaves.

The pillor placed in the middle of our rath was to prevent corringes driving up to the aviory, and a forms exerter remaining links with the times of the Zoo.

. Facing us on the point of lawn R is a specimen tree of the Funeral Cypress, Curres as forebris, in i's general aspect act unlike the Yew of nothern climes. A One new takes the path/bordered each with

fine clumps of the Red Sending Ware Point Cyrtostudys Calebra, Known to the maluy as the Briang Rajah or King of Palms. These inling are very slow growits

but are well worth their place for the brilliant scarlet.

On the left a little way down the main road is a large spreading of the Augsenna tree Pterocayans indica, for many years the favorite roadside rie in malayan town, when soludeling its flowers it paves the roads with a compet of royal yellers and privide a " allightful is forest arounds we roof destroy I ag

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colouring of the leaf base shouths.

On Lawn B are to be seen species of the Sann tree,

which at flowering time is a

mass of golden vellow reminding one of the Labruran in an

English spring. Here also so a small bush of Engenia

Caryophyllala, the Clare Tree, once a communities in

cultivation in Suigapore but abandoned some the

accommon free the

carriefing fun, attache on 1:6.

Queen of Flowers, and of late years masses of Carnas have appeared here instead. The roots of the surrounding trees, however, have extended and so seriously interfered with the flower beds that several have had to be proved over.

One of the chief offenders in this respect is a table specimen of the Flower of the Forest, Poincians regio, whose dense occurring of brilliant scarlet flowers remakes it well worthy of its name.

Ascending the steps (no in on the lower terroce which nearly encircles the bandstand, and inverte on the right is a tall yellowish leaved should of leythroughous coca, from the scarlet bernies of which cocains is obtained.

Jurning to the left we proceed along the terroce which is devoted to flower beds and should if builtiant foliage a striking and ornamental flowers.

an attempt at a tropical flower garden with hedge of brilliantly coloured flowers and foliage. If the turns to the left

and walks round part of the circle, the can see a few of

these beds and one must also actice the dense masses of

ferns which are unbidden guests in the branches of the trees

and which after a time defeat their own object by their

wary weight breaking down their nations actions.

In passing one should notice the fine specimens of

Portocarpus neglection and the Res Butil During liven

chating took notices of the lights to take the con
and two specimens of the african die Palsa, Eleca

On the left down towards the lake can

be seen the crowns of an avenue of the Cabbage

Palsa, I bad pal to. Ine also has opportunities of

seeing they

Below the putte on the left is a small bed with the climbing aristolochia whose bigarre shaped flowers are probably as curious as any and have carned for it the family name of the Dutchman's Pipe.

On arriving at the steps whence one obtains a gluingse of the Sultan of Johne's Palace of Tyersall, unin Rabiled : since the fire of , one turns to the right and is on the top of the Bandstand Hill, the oldest-part-of the bardens. Here one cannot fewl to be struck with the beauty and grace of the tall sentinel like palms, which provide such a delightful setting to the Boundstand itself. The floor of the Bandstand is of white sand, and here between 5 and 6 pm, when there is no band playing, is a happy play ground for the children who come with their spades and buckets until the evening sharlows begin to fall.

with their spodes and buck-tis with the westill the dembers

Office Gate Road for a short distance and then turn to the left and down the flight of steps to the Exhibition house.

These steps are always bordered with soon plants grouned so as to present a blaze of colour, olimping with the plants displayed for the lime being. The math running along the front of the house is bordered with an ever flowering display

whose straw coloured the Soft are so begin the Bipladeing beautifully scented Dipladeing

of the local number and white Malayan Orchid Spati ogictta placata

The Exhibition House was erected

in 1884 at a cost of \$6000 primarily for the purpose of local Flower Shows for which it is admirably adapted. The last of these shows held was in a since when the local

whows held in different ports of the country have rother surgles-

ted the criginal central shows of Singapore.

Al Chonemorpha Reedii

Grouned around the centre piece of the house is a

constantly changing of lection of flowering pot plants. The malks on either side are bordered by dense masses of brightly occured foliage plants, of which the Antho ium is to be seen in all its varieties.

At the back of the house one finds a femand formand free political of ferms and free plants whilst one side walk in devoted to an exhibition of desert plants rarely seen in this lumid climate. It is estimated that there are at least 3000 plants in this loupe.

Passing from this house '; 'electhors exit one enters the Begonia House where On 'e central stages in a severy representative sollection of the infinite variety of colour and shape displayed by tropical Pagamina and Caldium; On the stage next to the Exhibition House are shown the more rare kinds of croilids as they come into flower. One should

the trees of the back of this house with a wall of brick red blossons.

by Cancoemic Marcania whose large white flowers are benutifully scented in their season, and Passem, etween telest of species of Hedgle' irre the sweet scent of whose flowers fills the sir around, our cross the road and return up

the right one panes a fine spenmen of maintain Henry, Francis allow opportunity of and laming two well the grant wildow palm of maley arent the way.

a little further on at the bottom of the steps on the right, is a young specimen of the Upas Tree, antianis touciaria, from the funits of which a virulent prison is obtained and used for possoning arrows and darts.

arrived at the sop of hearanta avenue, so called from the

After heaving the Beschie house, one preceds
along the math leading to the propagation pith for a short while
and then turns sharpely to the left on the steps and back
on to the lower Bandstand Ring Road, then turning to the right
one arrives at the head of Maranta Avanue. One che's light
handsaid for a fine specimen of the local jungle tree

marmirilia. As a resident

it, a splendid example of a jungle lique whole stake-like

coils give one a vivid idea of the struggle for life that goes. A can in wild nature. Facing one but alightly to the left is a facing while the second of the magnific lent ocllection of palms in the Polm Valley. At one feet one generally finds the ground occurred with A scarlet gold rimed tulip-like flowers of Spatiodes.

Companyion, a native of tropical Africa, whose flowers of the Forest.

Valley it is well worth hile turning to the right down Links Rend to walk through the rort of the Gradens still kept ader the of the fittle few original pleas of jungle in Singapore

On the right of Loane Road in the Bern Robberg built in 1884 when labour was well poid at the sum of \$4% per not monthly. It contains a good collection of our indigenous ferms conspicuous encusate them being the large Angiopteria eyes and pakes gadjah, or elegant ferm of the Majaya, and pointed of the Majaya, and pointed of the Champlio say aparensis.

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At the bettem of Liams Read one entern the jungle by a feetpath on the left. The first part of one's walk is rubber open for here during the post few years, a fungus pent how played haves with the vegetalich., will except the biggest trees having been killed right off, and growths of ferns springing up in the opened spaces. After the path lands westwords, however, one sees the unfouched jungle and can there viampline the excellent opportunities one has (I getting leath onesoff the beaten track, and the difficulty of outting class way through the mann of oremore and uidanare wth.

On emerging from the jungle path one finds cheself at the bottom of Maranta Avenue,

and then // the right to in real

the Paim Valley. The first thing to action as one goes wholey the Palm Valley read in the collection of Retain (Majades onless) which are seen growing on the left, and rulling their

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snake-like ocils up to the tops of the trees by the admirally edapted with sharp adapted with sharp reflexed spiges.

Eclicating down the real cas passes of the cut wide of the tungle on right and our notice the high backs the Reson of the hologs of the bracker of the passes of the passe

white pillers marking the Clary Read entrance to the Garden sand at this point one roust begin to retrace cre's steps by cutting serous the grass to the left and down on to the read in the bottom of the Palm Valley. There a turning so to serve one passes the number of the right and following the sath up the Palm Valley of rotioing the sath up the Palm Valley, can had an operaturity of rotioing the lasting to

De Donather : en hersi en nord de service de la formation de l them is force of them in the second of the second Mid papar of your plan plan being in his of an in the state of the ment of the second matter was formally service of the state of the same of a little further but on the right is a large leaved her Hibisus with yellow flower dente centured flowers, very unlike the Hibiseus should so common in the gardens and hulges. variaty to be found in tropical and subtrepical palma.

A rived stile head of the Palm Valley once more one passes the island clumps of the Red Sealing Wax.

Palm and strikes a small path running to the right of Marasta Avenue, and bordered with beautiful specimens of the palm

Away on the right is the Tyerwichl and Butronce the road to from the pure fold it being bordered with young palms Arenge, neconstraint the true of gula or sugar one appreciates so much in the Gula Malacca puddings is obtained on the slopes across the Areng one sees some very graceful specimens of the small leaved fig tree Fines beninming as I the Tembusa tree Fagraes, cyrtophyllum, and a young specimen of the path new follows along the top of the dell to

the loke /Ir one has time it is well worth while going

down the steps on the right and wandering between the

1/2 B1-34/35

rockeries of coral amongst the masses of ferns and vegetation.

On reaching the lake the path skirts the endown edge until it joins the Main Gate Road, down which we retouce our steps to the principal entrance occurs to the pentitied of the pentitied.

Them has are obne to he J. anderson for permining to use seri of the accompanying photographs. The remaining photographs were taken by her of the of the

Botanic Bulletin published as material becomes available, in the Botanic Gardens, and notes of interest abstanted out

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